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Tang, Shu-Lien				
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Civic Boulevard. Sec. 4				
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		EXAMINER		
		MERCADO, JULIAN A		
		ART UNIT		PAPER NUMBER
		1745		
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE		DELIVERY MODE
3 MONTHS		01/11/2007		PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

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Office Action Summary

Application No.

10/827,407

Applicant(s)

TANG, SHU-LIEN

Examiner

Julian Mercado

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☒ Claim(s) 1 and 2 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 April 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|-----------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Remarks

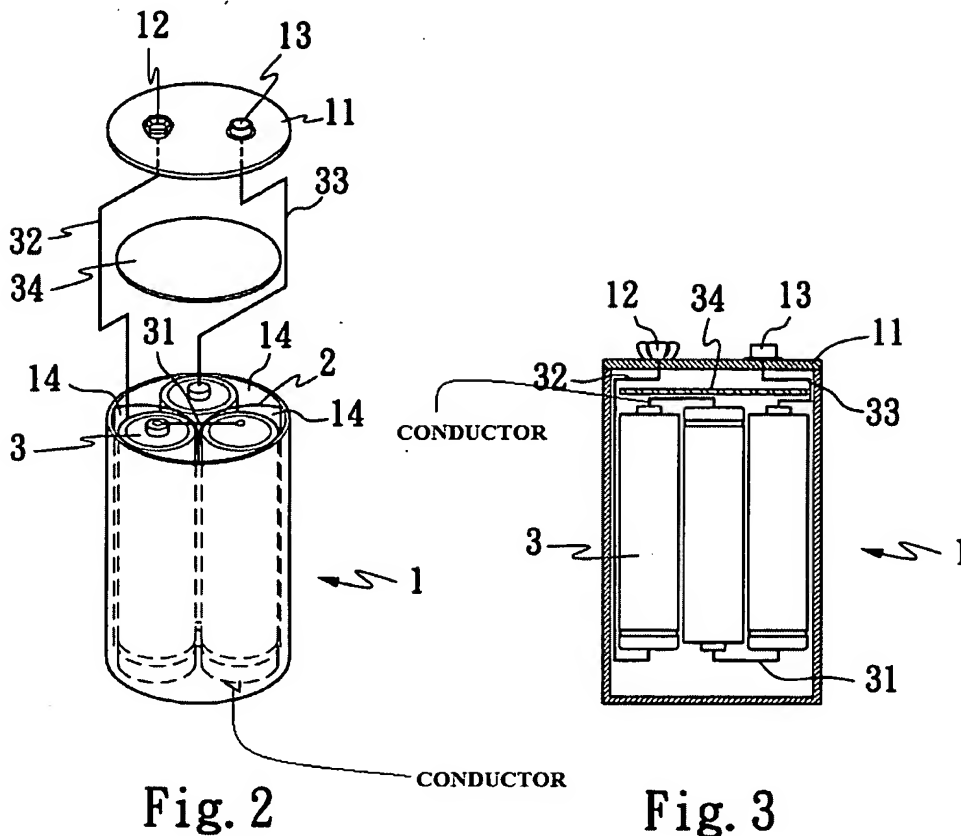
Claims 1-4 are pending.

Information Disclosure Statement

The examiner notes that the Information Disclosure Statement (IDS) filed on June 21, 2004 is part of another application and not the instant one. This IDS has been lined-through.

Drawings

The drawings are objected to because the conductors [31], [32] and [33] appear to remain as a open circuit even when connected to a load. See Figure 3 in comparison to Figure 2 with attention to conductor [32]. In Figure 3, note that conductor [31] is shown to connect the second and third batteries, while in Figure 2 the same conductor is shown to connect the first and second batteries. It appears to the examiner that Figure 3 should show all connection points since the Figure is a cross-section. Optionally, Figure 2 should also show the connection points, while it is understood as less important since this Figure is a perspective view and the connection may be hidden in the drawings. The examiner has attached herein suggested modifications for the drawings, labeled with "CONDUCTOR".



Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet"

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pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

Claims 1 and 2 are objected to because of the following informalities:

In claim 1 at line 8 (corresponding to line 10 of page 9), it is suggested to change the limitation "three pieces of 1.5V batteries" to --three 1.5V batteries--.

Claim 2 at line 3 recites a similar limitation to claim 1 and is objected to under the same grounds.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-4 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for two of the three 1.5 batteries being connected by a first conductor, does not reasonably provide enablement for all three of the batteries to be connected by the first conductor, as recited in claim 1 at lines 8-10 (corresponding to lines 10-12 of page 9). The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the invention commensurate in scope with these claims.

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See Figure 3 and the first full paragraph on page 7 of the specification which discloses a first, second and third conductor connecting all three batteries.

Claims 2-4 are rejected under 35 U.S.C. 112, first paragraph as being dependent upon a rejected base claim.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-4 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 at lines 8-10 (corresponding to lines 10-12 of page 9) recites a first conductor connecting all three batteries. In view of Figure 3 and its accompanying description on page 6, it is unclear how a single conductor physically connects all three batteries. For purposes of examination, while it is understood that all three batteries are connected, the first conductor is interpreted to connect two of the three batteries.

The term "thin sheet plastics" in claim 4 at line 2 is a relative term which renders the claim indefinite. The term "thin" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

Claim 4 recites the limitation "batteries to be mounted in said container" in lines 4-5. As the battery cartridge already positively recites "batteries being mounted in said cylindrical container" (see claim 1 at lines 8-9), the "batteries to be mounted in said container" as recited in

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claim 4 do not appear to be mutually exclusive to the prior limitation. Alternatively, the limitation “batteries to be mounted in said container” is redundant to the prior “batteries being mounted in said cylindrical container”. It is thus unclear if the claim intends to recite additional batteries being mounted in the container.

Claims 2-4 are rejected under 35 U.S.C. 112, second paragraph as being dependent upon a rejected base claim.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3 are rejected under 35 U.S.C. 102(b) as being anticipated by Azuma et al. (U.S. Pat. 3,776,778).

For claim 1, Azuma teaches a battery cartridge comprising a cylindrical container [29] having an open end being closed with a cover [7], with the cover being provided on the same side with a first [14] and a second [15] contact electrode. See col. 3 line 12 et seq. and line 47 et seq., col. 4 line 62 et seq. and col. 5 line 65 (for “numeral 29 a cylinder shaped metal jacket”). Notwithstanding the 35 U.S.C. 112, first and second paragraph rejections (discussed above), Azuma teaches three 1.5V batteries mounted in the cylindrical container and connected in series via conductors, as shown in Figure 7. See col. 6 lines 11-38. As shown by this Figure and in

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comparison to Figure 8 which shows the batteries in place, one of the three batteries is connected at a negative electrode to a first contact electrode via a second conductor [13], and another one of the three batteries is connected at a positive electrode to a second contact electrode via a third conductor [37] such that said first and said second contact electrode are defined as negative and positive electrode, respectively. Furthermore, three 1.5 V batteries in series results in a 4.5 V battery cartridge. It is noted that the patentees disclose a voltage of 6 volts in col. 1 line 8, which is not precisely understood by the examiner since voltages in series are additive (while maintaining the same capacity). Even if the patentees were correct, a 4.5 V battery is taught by a 6 V battery, but more importantly it is asserted that Azuma clearly teaches three 1.5 V batteries in the series configuration, as claimed.

For claim 2, an insulating plate [24] is located between the cover and the three 1.5V batteries.

For claim 3, a partition [36] is positioned in the container to divide an internal space defined by the container into a plurality of receiving rooms. See col. 5 lines 44-48.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Azuma (U.S. Pat. 3,776,778) in view of Peterson (U.S. Pat. 6,303,248 B1).

The teachings of Azuma are discussed above.

For claim 4, and to the extent that this claim is understood by the examiner for the reasons set forth under 35 U.S.C. 112, second paragraph (discussed above), Azuma teaches that the partition prevents short-circuiting. See col. 5 line 45 et seq. While Azuma does not explicitly teach the partition to have curvatures, Peterson teaches for a battery cartridge a partition [23] made of thin-walled shrink wrap material and having curvatures. See col. 5 lines 5-22. Note that Peterson similarly teaches that this configuration avoids short-circuiting of the batteries. The skilled artisan would find obvious to modify Azuma's invention by employing curvatures as the nature of the problem to be solved (avoidance of a short-circuit) is shared by the prior art and would be additionally motivated by the proper orientation and polarity orientation of the battery cells provided for by a partition having curvatures. (Peterson, ib.)

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. U.S. Pat. 4,371,597 is cited of cumulative relevance.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Julian Mercado whose telephone number is (571) 272-1289. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick J. Ryan, can be reached on (571) 272-1292. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.



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